

GEOM. CH. 8.7 p. 450



#9

10 points

GIVEN: $D = 8 \text{ cm}$
 $d = 4 \text{ cm}$, $h = 9 \text{ cm}$

FIND: A - ?

$$R = \frac{D}{2} = \frac{8}{2} = 4 \text{ cm}, \quad r = \frac{d}{2} = \frac{4}{2} = 2 \text{ cm}$$

(2p) 1. TOP AREA $A_T = \pi R^2 - \pi r^2 = \pi \cdot 4^2 - \pi \cdot 2^2 =$
 $= 16\pi - 4\pi = 12\pi \text{ cm}^2 = 37.68 \text{ cm}^2$

(1p) 2. BOTTOM AREA = TOP AREA = $12\pi \text{ cm}^2 = 37.68 \text{ cm}^2$

(2p) 3. LATERAL (SIDE) SURFACE AREA: $2\pi R \cdot h =$
 $= 2 \cdot 3.14 \cdot 4 \cdot 9 = 25.12 \cdot 9 = 225 \text{ cm}^2$

(2p) 4. INSIDE AREA $= 2\pi r h = 2 \cdot 3.14 \cdot 2 \cdot 9 =$
 $= 113.04 \text{ cm}^2$

(3p) 5. TOTAL AREA $= 37.68 + 37.68 + 225 +$
 $+ 113.04 = \underline{413.4 \text{ cm}^2}$